We use the updated Excel file to run the code because it creates two tables, Sensors and Measurements, and uses the updated data to calculate the comfort index. This brings us to the question of understanding databases, specifically relational databases. The two tables generated have a relationship and can be considered part of a relational database because the columns in the Measurements table are linked to the Sensors table.

Relational Database:

Data Model: Tables (rows and columns)

Schema: Strict

Query Language: SQL

Use Cases: Structured data, transaction processing

Apart from convenient data management and storage, another crucial reason is to visualize the data. The final project results need to be presented, and visualization helps others understand the data. This is another reason why we need to build a complete database.

Non-Relational Database:

- Diverse data models, such as key-value, document storage, graph storage, etc.
- No fixed schema, more flexible scalability

In this project, we will use a relational database. The database management system we will use is MySQL, which is widely used in the industry.